

IN THE CLAIMS:

Please consider the claims as follows:

1. (previously presented) In an interactive information distribution system including a network of provider equipment and subscriber equipment, apparatus comprising:

a plurality of head-ends coupled to subscriber equipment via an access network, the head-ends coupled to each other via an inter-server network, each of the head-ends comprising:

a server for distributing requested video assets to requesting subscriber equipment via the access network;

a storage having a primary storage partition for storing frequently requested video assets and a secondary storage partition for storing infrequently requested video assets, the infrequently requested video assets being distributed amongst the secondary partitions of the head-ends; and

a manager for managing migration of video assets, wherein the manager tracks asset request rates and threshold rates of respective video assets;

wherein the manager, in response to an infrequently requested video asset becoming frequently requested, selects ones of the head-ends to store the frequently requested video asset and transmits the frequently requested video asset to the selected ones of the head-ends for storage in associated primary storage partitions;

wherein the manager, in response to a frequently requested video asset becoming infrequently requested, selects one of the head-ends to store the infrequently requested video asset and provides the infrequently requested video asset to the selected one of the head-ends for storage in an associated secondary storage partition.

2. (previously presented) The apparatus of claim 1, wherein:

the manager identifies an infrequently requested video asset as becoming frequently requested when the asset request rate crosses above the threshold rate; and

the manager identifies a frequently requested video asset as becoming infrequently requested when the asset request rate crosses below the threshold rate.

3. (previously presented) The apparatus of claim 2, wherein:

in response to a request for a video asset received from requesting subscriber equipment, the manager controls distribution of the requested video asset from one of the head-ends identified as storing the requested video asset to the requesting subscriber equipment.

4. (previously presented) The apparatus of claim 3, wherein the manager comprises:

a content manager for receiving the request for the video asset and determining whether the requested video asset is stored locally in the storage of that head-end at which the video asset request is received or stored remotely in the storage of a different head-end;

a stream session manager for directing the associated server to distribute streams of video assets to subscriber equipment requesting the video assets; and

a content session manager for responding to video asset requests forwarded from managers of other ones of the head-ends.

5. (cancelled)

6. (previously presented) The apparatus of claim 4, wherein a content manager of a local head-end at which a video asset request is received, in response to determining that a requested video asset is stored locally, notifies the stream session manager to deliver the requested video asset to the local server for transmission by the local server to the requesting subscriber equipment via the access network.

7. (previously presented) The apparatus of claim 4, wherein the content manager of a local head-end at which a video asset request is received, in response to determining that a requested video asset is stored remotely in the storage of a remote head-end,

instructs the stream session manager of the local head-end to contact the content session manager of the remote head-end.

8. (previously presented) The apparatus of claim 7, wherein the content session manager of the remote head-end identifies the requested video asset in the storage of the remote head-end, allocates bandwidth for transmitting the requested video asset, and, in response to a determination that the requested video asset is to be provided from the remote head-end to the requesting subscriber equipment via the local head-end, notifies the server of the remote head-end to transmit the requested video asset to the local head-end using the inter-server network.

Claims 9-18 (cancelled)

19. (previously presented) In an interactive information distribution system comprising a plurality of head-ends coupled to subscriber equipment, each of the head-ends comprising a server, a storage, and a manager, each of the storages having a primary storage partition for storing frequently requested video assets and a secondary storage partition for storing at least portion of infrequently requested video assets, the head-ends providing video asset migration between head-ends and providing video assets to respective subscriber equipment in response to subscriber requests, a method comprising:

- determining an asset request rate for each of the video assets stored in each head-end;

- comparing the determined asset request rates with respective threshold rates of each of the video assets;

- in response to an infrequently requested video asset stored on a secondary partition becoming a frequently requested video asset, selecting ones of the head-ends to store the frequently requested video asset and migrating the video asset stored on the secondary storage partition to the selected ones of the head-ends for storage in the corresponding primary storage partitions;

- in response to a frequently requested video asset stored in a primary storage partition becoming an infrequently requested video asset, selecting one of the head-

ends to store the infrequently requested video asset and migrating the video asset stored on the primary storage partition to the selected one of the head-ends for storage in the corresponding secondary storage partition.

20. (cancelled)

21. (previously presented) The method of claim 19, further comprising:
for each infrequently requested video asset that becomes a frequently requested video asset, removing the infrequently requested video asset from the secondary storage partition; and

for each frequently requested video asset that becomes an infrequently requested video asset, removing the infrequently requested video assets from each of the primary storage partitions of the head-ends on which the frequently requested video asset was stored.

22. (previously presented) The method of claim 19, further comprising:
receiving, at one of the head-ends, a request for a video asset;
identifying a head-end storing the requested video asset, wherein the head-end comprises one of the local head-end at which the video asset request is received or one of the other head-ends remote from the head-end at which the video asset request is received;

causing the identified head-end storing said requested video asset to begin providing the requested video asset; and

transmitting the requested video asset through an access network to the subscriber equipment initiating the video asset request.

23. (previously presented) The method of claim 22, wherein, when the identified head-end is the local head-end coupled directly to the requesting subscriber equipment, the local head-end provides the requested video asset to the requesting subscriber equipment via the access network.

24. (previously presented) The method of claim 23, wherein, when the identified head-end is one of the remote head-ends, the local head-end requests the requested video asset from the remote head-end and the remote head-end provides the requested video asset to the local head-end via an inter-server network.

25. (previously presented) In an interactive information distribution system including a network of provider equipment and subscriber equipment, apparatus comprising:

a plurality of head-ends coupled to subscriber equipment via an access network, the head-ends in communication with each other via an inter-server network, each of the head-ends comprising:

a server for distributing requested video assets to requesting subscriber equipment;

a storage having a primary storage partition for storing frequently requested video assets and a secondary storage partition for storing infrequently requested video assets selectively distributed amongst the head-ends; and

a manager for controlling processing of video asset requests from subscriber equipment and distribution of video assets to requesting subscriber equipment, wherein the manager comprises:

a content manager for receiving a request for a video asset from requesting subscriber equipment and determining whether the requested video asset is stored locally in the storage of that head-end or stored remotely in the storage of a remote head-end; and

a stream session manager for directing the local server to distribute requested video assets to the requesting subscriber equipment.

26. (previously presented) The apparatus of claim 25, wherein the manager further comprises:

a content session manager for receiving asset requests forwarded from other ones of the head-ends, identifying and retrieving requested video assets requested by content managers of other ones of the head-ends, and providing requested video assets to the other ones of the head-ends.

27. (previously presented) The apparatus of claim 26, wherein the content manager, in response to determining that the requested video asset is stored locally, notifies the stream session manager to deliver the requested video asset to the local server for transmission by the local server to the requesting subscriber equipment.

28. (previously presented) The apparatus of claim 26, wherein the content manager, in response to determining that the requested video asset is stored remotely in the storage of a different head-end, instructs the stream session manager of the local head-end to contact the content session manager of the remote head-end.

29. (previously presented) The apparatus of claim 28, wherein the content session manager of the remote head-end identifies the requested video asset in the storage of the remote head-end and allocates bandwidth for transmitting the requested video asset.

30. (previously presented) The apparatus of claim 29, wherein, in response to a determination that the requested video asset is to be provided from the remote head-end to the requesting subscriber equipment via the local head-end, the content session manager of the remote head-end notifies the server of the remote head-end to transmit the requested video asset to the local head-end.

31. (previously presented) The apparatus of claim 30, wherein, in response to a determination that the server of the local head-end is available to receive the requested video asset from the remote head-end, the server of the remote head-end streams the requested video asset to the local head-end over the inter-server network.

32. (previously presented) The apparatus of claim 31, wherein the server of the local head-end received the requested video asset from the server of the remote head-end, wherein the received video asset is stored in the storage of the local head-end.

33. (previously presented) The apparatus of claim 29, wherein, in response to a determination that the requested video asset is to be provided directly from the remote

head-end to the requesting subscriber equipment, the content session manager of the remote head-end requests the stream session manager of the remote head-end to allocate bandwidth for providing the requested video asset to the requesting subscriber equipment.

34. (previously presented) The apparatus of claim 33, wherein the stream session manager of the remote head-end notifies the server of the remote head-end to stream the requested video asset to the requesting subscriber equipment.